

CLAIMS

[1] A communication device requested for authentication for connection from another communication device, the communication device comprising:

5 a receiving section for receiving, from the another communication device, an authentication request including device information capable of uniquely specifying the another communication device;

10 a display section for displaying the device information included in the authentication request on a screen thereof;

an input section for receiving an input instruction determined by a user based on the screen of the display section; and

15 an authentication section for executing processing of verifying or not verifying the authentication with the another communication device in accordance with the instruction input to the input section.

[2] A communication device requesting another communication device for authentication for connection, the communication device comprising:

20 a transmission section for transmitting an authentication request including device information capable of uniquely specifying the communication device to the another communication device;

a receiving section for receiving an authentication response including device information corresponding to the authentication request from the another communication device;

a display section for displaying the device information

5 included in the authentication response on a screen thereof;

an input section for receiving an input instruction determined by a user based on the screen of the display section; and

10 an authentication section for executing processing of verifying or not verifying the authentication with the another communication device in accordance with the instruction input to the input section.

[3] The communication device according to claim 1, wherein

15 when the receiving section receives a plurality of authentication requests from a plurality of the another communication devices, the display section simultaneously displays a plurality of pieces of device information included in the plurality of authentication requests.

20

[4] The communication device according to claim 2, wherein when the receiving section receives a plurality of authentication responses from a plurality of the another communication devices, the display section simultaneously displays a plurality of pieces 25 of device information included in the plurality of authentication

responses.

[5] The communication device according to claim 1, wherein
when there is no instruction from the user to the input section
5 within a predetermined time period, the authentication section
executes processing of not verifying the authentication of the
another communication device.

[6] The communication device according to claim 2, wherein
10 when there is no instruction from the user to the input section
within a predetermined time period, the authentication section
executes processing of not verifying the authentication of the
another communication device.

15 [7] The communication device according to claim 1, wherein
the device information includes an identification number and at
least one of a public key and an electronic signature of the
communication device.

20 [8] The communication device according to claim 2, wherein
the device information includes an identification number and at
least one of a public key and an electronic signature of the
communication device.

25 [9] The communication device according to claim 7, wherein

the authentication section generates a common encryption key using the identification number included in the authentication request received from the another communication device.

5 [10] The communication device according to claim 8, wherein the authentication section generates a common encryption key using the identification number included in the authentication response received from the another communication device.

10 [11] A communication system for executing authentication processing for connecting a first communication device to a second communication device, wherein:

the first communication device includes:

15 a transmission section for transmitting an authentication request including device information capable of uniquely specifying the first communication device to the second communication device;

20 a receiving section for receiving an authentication response including device information corresponding to the authentication request from the second communication device; and

25 an authentication section for executing processing of verifying or not verifying the authentication with the second communication device in accordance with the authentication response; and

the second communication device includes:

a receiving section for receiving the authentication request from the first communication device;

a display section for displaying the device

5 information included in the authentication request on a screen thereof;

an input section for receiving an input instruction determined by a user based on the screen of the display section;

10 an authentication section for executing processing of verifying or not verifying the authentication with the first communication device in accordance with the instruction input to the input section; and

a transmission section for transmitting the
15 authentication response instructing to verify or not to verify the authentication in accordance with the result of the processing performed by the authentication section to the first communication device.

20 [12] A communication system for executing authentication processing for connecting a first communication device to a second communication device, wherein:

the first communication device includes:

a transmission section for transmitting an

25 authentication request including device information capable of

uniquely specifying the first communication device to the second communication device;

5 a receiving section for receiving an authentication response including device information corresponding to the authentication request from the second communication device;

10 a display section for displaying the device information included in the authentication request on a screen thereof;

15 an input section for receiving an input instruction determined by a user based on the screen of the display section; and

15 an authentication section for executing processing of verifying or not verifying the authentication with the second communication device in accordance with the instruction input to the input section; and

the second communication device includes:

20 a receiving section for receiving the authentication request from the first communication device;

20 an authentication section for creating the authentication response including the device information corresponding to the authentication request; and

 a transmission section for transmitting the authentication response to the first communication device.

[13] An authentication method for executing authentication processing for connecting a first communication device to a second communication device, the authentication method comprising the steps of:

5 the first communication device transmitting an authentication request including device information capable of uniquely specifying the first communication device to the second communication device;

10 the second communication device receiving the authentication request from the first communication device;

the second communication device displaying the device information included in the authentication request on a screen thereof;

15 the second communication device inputting an instruction determined by a user based on the screen displaying the device information;

the second communication device executing processing of verifying or not verifying the authentication with the first communication device in accordance with the input instruction;

20 the second communication device transmitting an authentication response including device information corresponding to the authentication request instructing to verify or not to verify the authentication in accordance with the result of the processing;

25 the first communication device receiving the

authentication response from the second communication device; and
the first communication device executing processing of
verifying or not verifying the authentication with the second
communication device in accordance with the authentication
5 response.

[14] An authentication method for executing authentication
processing for connecting a first communication device to a second
communication device, the authentication method comprising the
10 steps of:

the first communication device transmitting an
authentication request including device information capable of
uniquely specifying the first communication device to the second
communication device;

15 the second communication device receiving the
authentication request from the first communication device;

the second communication device creating an
authentication response including device information
corresponding to the authentication request;

20 the second communication device transmitting the
authentication response to the first communication device;

the first communication device receiving the
authentication response including the device information
corresponding to the authentication request from the second
25 communication device;

the first communication device displaying the device information included in the authentication request on a screen thereof;

5 the first communication device inputting an instruction determined by a user based on the screen displaying the device information; and

the first communication device executing processing of verifying or not verifying the authentication with the second communication device in accordance with the input instruction.